

PEDAGOGICAL CONTENT KNOWLEDGE FOR TEACHING ENGLISH

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ABSTRACT

This research was conducted to find out how well English teachers in Banda Aceh displayed Pedagogical Content Knowledge (PCK) in teaching English and how they developed their knowledge of teaching. This research was a classroom research and the focus of the analysis was knowledge of the subject, teaching strategies and knowledge of learners' conceptions. The participants were four English teachers (Betty, Dina, Aminah and Cut - pseudonyms), each from a different junior high school. They teach second grade ESL students. The instruments used for collecting the data were observation sheets and interview guides. The results from the study show that the teachers each had their own strengths and weaknesses in teaching English. The four participating teachers taught different topics and they showed dissimilarity in displaying PCK. Betty and Dina had more subject matter knowledge compared Aminah and Cut. For teaching strategy, Aminah, Cut, and Dina used a telling or lecture method whereas Betty used a Grammar Translation Method to teach her students to learn to understand spoken English. In the last trait analyzed, these four teachers had limited knowledge of how to identify the conceptions of learners even though they had had many years' experience as English teachers and had often observed other colleagues. The differences in teaching knowledge amongst the sample teachers could be caused by many factors such as different methodologies used, different teaching experiences, different marital status, and different language backgrounds of the students. This study shows that these teachers still needed to improve their PCK.

Key Words: *Pedagogical Content Knowledge, Teaching English.*

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INTRODUCTION

The education field today faces many serious problems in teaching-learning activities from those related to school policy and changes in curriculum to better teaching-learning methods, how to stimulate the interest of students in learning to problems with teacher professionalism. The latter, teacher professionalism or the quality of teaching especially teacher knowledge appears to be one of the most important problems to be focused on that needs to be resolved as soon as possible. Many teacher educators (such as Ball & Bass, 2003; Ball & Cohen, 1999; Grossman, 2008) have voiced similar concerns about the problems with teacher education in institutions preparing professional teachers.

Teachers need to develop and construct knowledge from their social and institutional contexts because everyday life affects the way in which each teacher perceives the world. Such perceptions definitely influence their practices and beliefs as well as the ideological implications of their teaching. If teachers are not able to take into account the variables in their teaching contexts then their mastery of the technical aspects of language will not be able to transcend the lives of their students.

Therefore, teachers need to refresh and update their knowledge and skills since science and technology are developing very quickly in parallel with higher competitiveness of living in modern society. By refreshing and updating their knowledge and skills, teachers will be more able to stimulate their students to learn more so as to provide their students with appropriate hard and soft skills for competitive living in modern society.

Various researchers (such as Shulman, 1986; Hill, Rowan & Ball, 2005) have written on this and in particular, Etkina (2010:1) who emphasizes that, “teachers of a specific subject should possess special understanding and abilities that integrate their knowledge of the content of the subject that they are teaching as well as having knowledge of the learners who are learning the content”. Knowledge of the learners includes having knowledge of what pre-conceptions, misconceptions and difficulties that the learners might have about the topic. As educators know, teaching is a complicated practice that requires an interweaving of many aspects of specialized knowledge. Such specialized knowledge includes knowledge of pedagogy, knowledge of subject matter, and knowledge of the learners.

The concept of pedagogical content knowledge is not new in the field of education since according to some experts such as Magnusson, Krajcik and Borko (1999) and Shulman (1986), over the last 20 years, Pedagogical Content Knowledge (PCK) has been the focus of much research in the literature of teaching. The term PCK was introduced by Shulman (1986), a teacher education researcher who was interested in expanding and improving knowledge on teaching and the preparation of teachers.

Recently, the Government of Indonesia has paid more attention to the quality and qualifications of teachers. Teachers should meet the qualification of at least a 4-year Bachelor degree and have teaching certificates. Moreover, teacher certification programs based on a decree of the Minister of Education and Culture (*Peraturan Menteri Pendidikan Nasional RI*) No 18 year 2007 are one of the efforts being made to uplift the quality of professional teachers. A stronger base for this effort needs to be carried out in the (re)training of teachers already working in teaching.

Besides, the education department has already conducted a lot of training to improve the quality of teachers in various aspects such as curriculum and teaching methods. The Department has also held teacher training certification courses to improve the performance of teachers as well as doubling their salaries in order to improve their standard of living. The Government has also made regulations about teachers and lecturers in Indonesia related to their competence in teaching. It is stated in the Indonesian Law number 14 year 2005 (article 1 clause 10) that teacher competences include pedagogic competence, personal competence, social competence, and professional competence (Indonesian Government, 2005).

In ELT, the pedagogical content of knowledge enables the teacher to present the information in a clear way. Ur (1996:12) points out that the ability to explain new information well is considered one of the most essential qualities of being a good teacher. By explaining the new material or instruction effectively, teachers not only help students to understand the new information but also to activate a learning strategy by linking the new grammatical rule with what they already know, for example. The teacher might also compare or contrast the new grammatical ESL rule with the structure in the students' first language.

Based on the explanations above, the researcher was interested to conduct research concerned teachers' knowledge; and so, the focus of this study is on Pedagogical Content Knowledge (PCK) of a sample of

teachers. Since pedagogical competence also includes content knowledge as the first competency that must be fulfilled by a teacher, this study tries to investigate their knowledge of content for teaching ESL.

The Research Problems for this Study

The two research questions of this study are:

- 1) Do the teachers at Islamic Junior High schools (MTs) in Banda Aceh show good performance in pedagogical content knowledge in teaching English?
- 2) How did these teachers develop their pedagogical content knowledge for teaching English?

Significance of the Study

The study is expected to give meaningful results either theoretical or practical as follows.

The study can make a contribution to all teachers and candidate teachers about what knowledge and competences they should have for teaching such as subject matter knowledge, general pedagogical knowledge, and pedagogical content knowledge.

The findings from this research are expected to make a meaningful contribution to the teachers themselves, their schools and the government (the Education Department). For the teachers, the finding of this research are expected to enrich the teachers' insights about subject content knowledge, general pedagogical knowledge and pedagogical content knowledge which are deeply needed for teaching ESL. Besides, for the schools, it is hoped that the principle of each school will pay more attention towards the quality and competency of their teachers both in subject knowledge and in pedagogical knowledge so that the quality of education can be improved. Furthermore, the findings of this research could be meaningful for the government in order to increase the quality of teaching through workshops and or teacher training about content knowledge.

LITERATURE REVIEW

Competency is usually associated with high professional performance and there is a direct link in the field of education between the professional competence of teachers and the performance of their pupils. Teachers get professional concepts about educational theories

of teaching and learning, firstly from courses they take in colleges and universities; secondly from actual classroom experience; and thirdly from further training and continuous innovation (Ryan & Cooper, 2004).

A teacher's performance depends on the teacher's knowledge, (comprised of subject matter and general pedagogy), which is directly linked to the teacher's competency, characteristics and attitudes. Grossman's (1995) explanation of teacher knowledge matches the adapted Western model which means that teacher knowledge comprises subject matter and general pedagogy. Grossman (1990:222-223) defines content knowledge as "knowledge about the actual subject matter that is to be learned or taught. The content to be covered in high school social studies or algebra is very different from the content to be covered in a graduate course on computer science or art history". Teachers should also know and recognize the subjects they teach, including knowledge of central facts, concepts, theories and procedures within a given field, and knowledge of explanatory frameworks that organize and connect ideas. Subject matter then links with general pedagogy, which includes "knowledge about classroom organization and management, general knowledge of lesson structure, and general methods of teaching.

As Medley and Shannon (1994) as cited in Dunkin (1997) have pointed out, the main tools used in assessing teacher competence are paper-and-pen tests of knowledge. Indeed, the main tools for assessing teacher performance are observation schedules and rating scales and the main tools for assessing the effectiveness of teachers are data collection about the teacher's influence on the progress that their students have made towards defined educational goals; and these data are most likely to be the results from student achievement tests.

Shulman (1986:15-16) has identified Pedagogical Content Knowledge (PCK) as one of the most important knowledge bases that a teacher should possess in order to teach effectively. He maintained that having knowledge of subject matter is not enough to teach. Teachers need to possess pedagogical content knowledge as well. Moreover, He defined pedagogical content knowledge as the interpretations and transformations of subject-matter knowledge by teachers in the context of facilitating student learning. He further proposes several key elements of pedagogical content knowledge:

- (1) knowledge of representations of subject matter (content knowledge);

- (2) understanding of the conceptions of students concerning the subject and the learning and teaching implications that were associated with that specific subject matter; and
- (3) general pedagogical knowledge (or teaching strategies). To complete what he called the knowledge base for teaching, he included other elements:

Hashweh (1987) points out that pedagogical content knowledge is personal knowledge linked with experience that teachers develop and accumulate in teaching a subject. It also includes knowledge about the previous knowledge of students and their assumptions about it and how to deal with them.

PCK emphasizes the manner in which teachers relate their subject matter knowledge (what they know about what they teach) to their pedagogical knowledge (what they know about teaching, how their learners learn and their learners conceptions). Besides, Mishra and Koehler (2006:1027) see pedagogical content knowledge as a base which is concerned with the representation and the formulation of concepts, pedagogical techniques, and knowledge of what makes concepts difficult or easy to learn, and knowledge about prior knowledge amongst their learners.

The components of PCK involve according to Shulman (1986, 10-14):

1. Knowledge of subject matter,
2. Knowledge of instructional strategies,
3. Knowledge of learners' conceptions,
4. An understanding of what makes the learning of specific topics difficult or easy for learners, and
5. Curriculum knowledge.

Moreover, pedagogical content knowledge includes these aspects (McDougall, 2005:29):

1. Knowledge of core concepts, processes and skills that a topic has the potential of conveying to the students
2. Knowledge of the aspects of a topic that are most difficult for students to learn
3. Knowledge about what instructional representations, for example: analogies, metaphors, exemplars, demonstrations, simulations and manipulations are most likely to be most effective
4. Knowledge of what misconceptions students could hold that are likely to get in the way of learning.

Magnusson, Krajcik and Borko (1999:97) conceptualize pedagogical content knowledge to be composed of five components.

1. The first component refers to orientations toward teaching, which represent the general way of viewing English teaching.
2. The second component relates to one's knowledge and beliefs about the curriculum, including goals, objectives, specific curricular programs and materials.
3. Knowledge and beliefs about the students' understanding of specific topics is the third component, which includes students' difficulties and misconceptions associated with specific concepts.
4. The fourth component consists of a teacher's knowledge and beliefs about assessment in science, and
5. The last component refers to the knowledge and instructional strategies for teaching, including both subject-specific and topic-specific strategies.

Through teaching experience and reflection on their teaching, teachers acquire pedagogical content knowledge, general pedagogical knowledge, knowledge of educational context, knowledge of purposes and values of education, knowledge of learners and knowledge of self. These types of knowledge help the teachers to deal with the contextual factors that they face in teaching.

In essence, PCK is a form of knowledge that can only develop through complex actions and repeated practice.

RESEARCH METHODOLOGY

A qualitative research approach which focused on classroom research was used in this investigation. Classroom research is a process that involves teachers in the formal study of teaching and learning. It includes close observation, the collection of feedback on students learning, and the design of experiments with the goal of learning more about how students learn and respond to particular teaching approaches (Angelo & Cross, 1993).

The study was designed to observe content knowledge of the sample teachers teaching ESL at their respective Islamic Junior High School (MTs) in Banda Aceh, especially their pedagogical content knowledge. In addition, the study tried to find out how these teachers developed their teaching knowledge. Besides, the study tried to analyze the way in which these teachers combined knowledge of English materials with knowledge of teaching so that their students could

understand the materials well. The researcher used an interview guide and observation sheets to collect the data about the teachers' content knowledge.

The components of pedagogical content knowledge which were analyzed in this research were:

1. knowledge of subject matter,
2. knowledge of instructional strategies, and
3. knowledge of learners' conceptions.

The choice of these three components of PCK above was influenced by the fact that teachers form the core of what Shulman (1986) indicated as teacher's PCK that would enable the teacher to transform the subject matter knowledge in such a way that their learners would be readily able to access the content.

First, the teacher needs to have a good grasp of the subject matter knowledge, here ESL, before being able to transform it. Second, the teacher needs a teaching strategy to use to make the subject accessible to the learners. Third, the teacher needs to have an idea of possible learners' conceptions that the learners may have about the topic in order to prepare explanations that will help to eliminate or reinforce the conceptions as necessary.

This study was conducted at four (4) Islamic Junior High Schools in Banda Aceh. They were MTsN 1, MTsN 2, MTsN Rukoh, and MTsS Babun Najah. In order to get authentic data, this study used purposive sampling. The researcher took one ESL teacher from each school, selected by a random sampling technique. Moreover, this study did not use the real name of each teacher during the discussions of the research results; instead the study uses a pseudonym for each teacher: Aminah, Betty, Cut and Dina to distinguish one teacher from another.

The data was collected via observations of the teacher's lesson presentations and by interview with the sample teachers. The following elements were assessed during the lesson observations:

1. Knowledge of the content of the topic in which the teacher was engaged, that included conceptual knowledge and procedural knowledge where that was used.
2. Knowledge of teaching strategy that enabled the teacher to present the lesson in a way that was comprehensible to the learners for which the following guidelines were used: choice of examples, representations, use of the white board, and appropriate teaching strategies

3. Knowledge of the learners' conceptions (misconceptions and pre-conceptions) about the topic under discussion where the following were used to check the teachers' knowledge of this element: assessing learners' understanding, identifying errors the learners' made, addressing the learners' difficulties, and determining sources of such difficulties, identification of misconceptions and elimination of them by probing questions, and using appropriate tasks.

Furthermore, the purpose of these interviews was to find out how the teachers had organized the lesson, the teacher's knowledge of key concepts to be taught, the teaching strategy to be used, how the teachers planned to assist the learners to overcome difficulties, assessment tasks, and any expectations of learners' misconceptions that the teachers might have had.

At the end of these observations, the researcher asked for the students' scores in order to compare the results of the learners' assessments with the performance of the teachers. The averages of the students' test scores was calculated and compared to the passing grade standard (KKM) which is 75 for English. The number and percentage of students who passed the KKM in each class was also calculated. The numbers were used as indicators of how well the students understand the subject matter taught by the sample teachers.

RESEARCH FINDINGS AND DISCUSSIONS

In this research Pedagogical Content Knowledge (PCK) has been divided into three sub-themes: namely, knowledge of the subject matter, knowledge of teaching strategies, and knowledge about conceptions of learners.

Knowledge of Subject Matter

Based on observations and interviews, it was found that both Aminah and Cut had limited knowledge for teaching English. Aminah provided little information related to the topic of notice. Whilst, when Cut was explaining things she still referred to the textbook. By contrast, Betty and Dina had adequate knowledge of their subject matter. Betty emphasized things well and insisted that the aim of teaching was to ensure learners' comprehension and understanding of the concept. Similarly when presenting the topic, Dina explained it well.

Knowledge of Teaching Strategies

Aminah appeared to have inadequate knowledge about teaching strategies since, firstly, she used the lecture method with a group work technique but she did not explain the subject well. Secondly, she did not use many questions. Thus, her students could not expand their knowledge. And lastly, she did not use the white-board to note important concepts.

By contrast, Betty has adequate knowledge of teaching strategies since, first, she used the grammar translation method to make students understand the concept, second, and she evaluated the learners' prior knowledge of the topic through oral questioning before presenting the new lesson. Third, in managing the lesson, she used a systematic order while presenting the lesson from the easiest materials to the most difficult material, and fourth, she also used the whiteboard to explain concepts to all her learners.

Meanwhile, Cut appeared to have insufficient knowledge of teaching strategies because she used the lecture method in presenting a lesson on spoof texts by reading the text book, then she hardly asked any of the students about their opinions and whether they understood the concept or not, and she did not correct the errors made by her students.

Finally, Dina had adequate knowledge of teaching strategies because she reviewed the previous lesson and she could control the class getting the students to speak one at a time. Then, she praised the answers given by her students and tried to get them involved in the learning process but she rarely used the whiteboard to write up notes about important concepts.

Knowledge of Students' Conceptions

The four participating teachers only used a few limited techniques for identifying the prior conceptions of their learners. They neither engaged the learners with probing questions with any measure of consistency nor came to their respective classes with a clear vision of the difficulties and misconception that learners may have about the topic of the day. In other words, during the observations, all four did not show strong skills related to the components of PCK.

The Development of the Teachers' Knowledge

The four participating teachers all graduated from the same English Department and none of them continued on to study for a master's

degree. Also none of them had attended any workshops or trainings that focused on teacher development recently. Nevertheless, because results of teaching are affected by many factors, the above differences might also be caused by different methods used, intensity of daily activities, civil status, and the language background of their students. Therefore, the teachers' knowledge in teaching especially of PCK was considered inadequate

CONCLUSION

The four participating teachers, Aminah, Betty, Cut and Dina did not show strong teaching skills in teaching the material presented whether it was knowledge of subject matter, knowledge of teaching strategies or knowledge of learner's conceptions. Amongst the four, Betty performed the best in displaying Pedagogical Content Knowledge since she had adequate knowledge of her subject matter, teaching strategy and sufficient knowledge about the conceptions of learners. Besides, the scores obtained by her students' were the highest in the tests conducted after the teaching presentations.

Regarding their teaching experience which is also regarded as a source of pedagogical content knowledge, these teachers have been English teachers for between 6 and 20 years. Their experience in teaching ESL most likely contributed a lot to their effectiveness in terms of getting good results in teaching English. Surprisingly, despite their experience in teaching the subject, during the observations they did not show good anticipation of the conceptions of their learners.

Suggestions

In order for teachers to use pedagogical content knowledge optimally the researcher would like to suggest that teachers should learn more about pedagogical content knowledge. A teacher not only needs to master materials for presentation but also to have knowledge of strategies for teaching, so that students can learn more easily. In other words, a teacher must know how to combine subject matter knowledge with pedagogical knowledge and conceptions of learners for presenting better English lessons.

The Education Department should conduct more workshops and training sessions so that English teachers can learn about pedagogical content knowledge especially knowledge about the conceptions of learners.

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